

REMARKS

In response to the action, Applicant has amended claims 1, 4, 6 and 8 and withdrew claims 8 to 10 from consideration. Applicant respectfully requests reconsideration in view of the amendments and the following remarks.

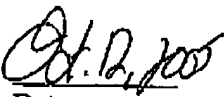
Applicant confirms election of the Invention I slurry claims (1 to 7) with traverse and has now withdrawn Invention II method claims (8 to 10) from consideration. Since the method claims of Invention II include the composition limitations of Invention I, Applicant respectfully requests reconsideration of the Invention II claims upon allowance of Invention I.

The action rejected claims 1, 4 and 6 under 35 U.S.C. § 112, second paragraph, for failing to include clear units. In response to the action, Applicant amended claims 1, 4 and 6 to include weight percent. Since naphthalene requires polymerization to form a surfactant the best notation for the term is "polynaphthalene" surfactant. But in commercial situations users often drop the "poly" to shorten the term. Typically, polynaphthalene surfactant and naphthalene surfactant refer to the same surfactant type. Applicant respectfully submits that this amendment enters no new matter; and that it renders claims 1, 4 and 6 in proper form.

The action rejects claims 1 to 7 under 35 U.S.C. § 103(a) as being unpatentable over Miura et al. (US Pat. No. 6,027,699). Miura et al. disclose the use of condensate of formalin with naphthalene sulfonic acid as an optional surfactant for use with fumed or colloidal silica. Applicants claim polynaphthalene surfactant for adsorption with metal oxide particles having a positive surface charge. For example, the polynaphthalene surfactant adsorbs onto alumina particles to reduce scratching of semiconductor substrates. The Miura et al. patent also does disclose the use of alumina sol, fumed titania and fumed zirconia as optional additives to the

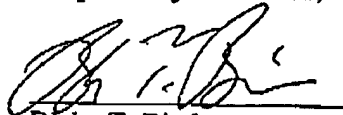
fumed or colloidal silica. The Comparative Examples and Examples all have basic pH levels where silica particles have a negative charge. Furthermore, the Miura patent at Col. 6, lines 33 to 35 discloses that the compound usually has a pH of at least 7 so that it "stably" contains the basic compound—silica particles maintain their negative charge until pH levels of about 2 or less than 2—these pH levels are hazardous and not typically used for polishing. Applicant has discovered that adsorption of polynaphthalene surfactant onto positive charged abrasive particles can reduce scratching of semiconductor substrates. With its negative charge, the polynaphthalene surfactants will not adsorb onto negatively charged silica particles. Thus, since Miura et al. fail to disclose that polynaphthalene surfactant adsorbs onto alumina particles to reduce scratching of semiconductor substrates; it operates with negatively charged silica particles; and polynaphthalene surfactants will not adsorb onto negatively charged silica particles, Applicant respectfully submits that Miura et al. reference does not suggest or render obvious claims 1 to 7, as amended.

Applicant respectfully submits that the amended claims are in proper form for allowance and request reconsideration. If a call would expedite prosecution, please call me at (302) 283-2136.

  
Date

Blake T. Biederman  
Patent Attorney  
1105 North Market Street  
Suite 1300  
Wilmington, DE 19899  
Tel. 302-283-2136

Respectfully submitted,

  
Blake T. Biederman  
Attorney for Applicant(s)  
Reg. No. 34,124